

PATENT COOPERATION TREATY

PCT**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P04E4016PCT	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/KR2004/001044	International filing date(<i>day/month/year</i>) 06 MAY 2004 (06.05.2004)	Priority date (<i>day/month/year</i>) 26 NOVEMBER 2003 (26.11.2003)	
International Patent Classification (IPC) or national classification and IPC H04B 7/26(2006.01)i			
Applicant ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE et al			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:

sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I Basis of the report
<input type="checkbox"/>	Box No. II Priority
<input type="checkbox"/>	Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI Certain documents cited
<input type="checkbox"/>	Box No. VII Certain defects in the international application
<input type="checkbox"/>	Box No. VIII Certain observations on the international application

Date of submission of the demand 27 APRIL 2005 (27.04.2005)	Date of completion of this report 21 MARCH 2006 (21.03.2006)
Name and mailing address of the IPEA/KR Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer KIM, Sang Woo Telephone No. 82-42-481-8324

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/001044

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language English, which is the language of a translation furnished for the purposes of:

international search (under Rules 12.3 and 23.1(b))
 publication of the international application (under Rule 12.4)
 international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished

the description:
 pages _____ received by this Authority on _____ as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____

the claims:
 pages _____ as originally filed/furnished
 pages* _____ as amended (together with any statement) under Article 19
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____

the drawings:
 pages _____ as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____

the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, Nos. _____
 the drawings, sheets _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____
4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, Nos. _____
 the drawings, sheets _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/001044

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-9	YES
	Claims		NO
Inventive step (IS)	Claims	1-9	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-9	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)**A. Novelty and Inventive step**

The present invention discloses a mobile IPv6 fast handover method. The fast handover method of the present invention performs fast movement detection by using layer 2 information simply and efficiently for fast handover in the mobile IPv6 and generates CoA in the access router instead of the mobile node without operations of many additional messages.

The following documents are made for references:

D1 : US 2003/0104814 A (Docomo Communications Laboratories USA)

D2 : WO 03/092316 A (Nokia Corp.)

D1 shows a tunneling handoff process that can minimize the handoff latency associated with the standard Mobile IP registration. A tunnel in D1 is set up between two mobility serving nodes, source and target nodes. The tunnel is used for communication between a mobile node and the source node after the mobile node completes an L2 handoff from the source node to the target node but before completing the standard Mobile IP L3 registration process or undergoing IP routing update with the target node. D2 shows a method for supporting relocation of an IP session during a network layer handover in a mobile communication system. Application context information indicates activities that are advantageously executed pro-actively before the network layer handover is sent. The indicated activities are then pro-actively executed in a receiving network node.

Claims 1-9 of the present invention meet the criteria set out in PCT Article 33 (2)-(3) in that neither of these documents nor any combination of them can teach or fairly suggest the main characteristics of the present invention: Performing fast movement detection by using layer 2 information and generating CoA in the access router instead of the mobile node.

B. Industrial applicability

The present invention including claims 1-9 suggests a method that can be used widely in a general mobile communication system, meeting the criteria set out in PCT Article 33 (4).